

## REMARKS

Further to the Amendment mailed April 17, 2006, and in response to the Office Action mailed December 14, 2005, Applicants are filing this supplemental amendment, which adds new claims 43-51.

### Drawings

In the Office Action, the Examiner objected to the drawings under 37 CFR 1.83(a). In response, Applicants have canceled Claim 9, which claims the features not illustrated in the drawings.

### Claim Objections

In the Office Action, the Examiner objected to Claims 12 and 34. In response, Applicants have canceled Claims 12 and 34.

### Claim Rejections – 35 USC §112

In the Office Action, the Examiner rejected Claims 1-42 under 35 USC §112. The Examiner stated that the term “microvolt range” is indefinite.

In response, Inventor Mateer declares that, “‘microvolt range’ has a meaning to those skilled in the art to mean from 1 to 1000 microvolts. Above 1000 microvolts would be expressed as the ‘millivolt range,’ and below 1 microvolt would be expressed as the ‘nanovolt range.’”

Applicants respectfully submit that Claims 1-42 are not indefinite.

### Claim Rejections – 35 USC §103 Claims 1-4, 6-8, 10, 12, 22, 28-30, 33-34, & 42

In the Office Action, the Examiner rejected Claims 1-4, 6-8, 10, 12, 22, 28-30, 33-34, and 42 under 35 USC §103 as being unpatentable over Vail (United States Patent No. 6,031,381) in view of Walters (United States Patent No. 3,539,915). Applicants respectfully traverse the rejection.

Applicants’ claim 1 recites, “a first contact for maintaining electrical contact with the pipe as the vehicle moves through the pipe, and a second contact ...for maintaining electrical contact with the pipe as the vehicle moves through the pipe.” In contrast, Vail teaches a stationary device which will not encounter the voltage error problems that Applicants’ invention is directed to. As the Examiner noted, Vail does not teach how the circuitry travels through the borehole casing. Applicants respectfully submit that Vail

also does not teach how Vail's electrical contacts would be able to maintain electrical contact as the circuitry was traveling through the borehole casing. Applicants respectfully submit that Vail also does not teach to move Vail's device through the borehole casing, or how to move Vail's device through the borehole casing.

Applicants respectfully submit that Walters does not remedy the deficiencies of Vail discussed above. Walters teaches measuring a change in magnetic field, not measuring a voltage difference between two locations on a pipe.

In addition, Inventor Mateer declares that the Examiner has failed to establish a prima facie case of obviousness (MPEP §2142). First, the Examiner has not provided a suggestion or motivation to modify Vail with the teachings of Walters. Mateer declares that there would be no motivation to combine "Vail's stationary voltage reading device with Walter's moving magnetic field creating pig." Second, the Examiner has not provided a reasonable expectation of success. Mateer declares Vail does not teach how "Vail's electrical contacts would be able to maintain electrical contact as the circuitry was traveling through the borehole casing."

Claim 22 also teaches a first contact to maintain electrical contact with the pipe as the vehicle moves through the pipe, and a second contact to maintain electrical contact with the pipe as the vehicle moves through the pipe.

Claim 42 also teaches a first contact to maintain electrical contact with the pipe as the vehicle moves through the pipe, and a second contact to maintain electrical contact with the pipe as the vehicle moves through the pipe.

Applicants respectfully submit that independent claims 22 and 42 are allowable for at least the same reasons as independent claim 1, discussed above.

Regarding claim 6, the Examiner took official notice that noise reducers are widely known, and which therefore makes claim 6 obvious. Applicants respectfully request that the Examiner support his assertion with an affidavit pursuant to 37 CFR 1.104(d)(2).

Applicants respectfully submit that neither Vail nor Walters, alone or in combination, teach or suggest the desirability of a first contact for maintaining electrical

contact and a second contact for maintaining electrical contact with a pipe as the vehicle moves through the pipe.

Applicants respectfully request that the Examiner withdraw the rejection to claims 1, 22, and 42, and their respective dependent claims for at least the reasons discussed above.

Claim Rejections – 35 USC §103 Claims 13-15 and 35-37

In the Office Action, the Examiner rejected Claims 13-15 and 35-37 under 35 USC §103 as being unpatentable over Vail (United States Patent No. 6,031,381) in view of Walters (United States Patent No. 3,539,915) and further in view of Applicants' admitted prior art. Applicants respectfully traverse the rejection.

MPEP §2129 requires the Applicants to identify the work as "prior art." Since Applicants have not identified the work in Applicants' specification as prior art, the Examiner must qualify the work as prior art under 35 USC §102.

Even if the Examiner does qualify the work as prior art under 35 USC §102, in order to establish a prima facie case of obviousness, the Examiner must establish the teaching or suggestion to combine, "in the prior art, and not based on applicant's disclosure." (MPEP §2142)

Applicants respectfully request that the Examiner withdraw the rejection to claims 13-15 and 35-37 for at least the reasons discussed above.

Claim Rejections – 35 USC §103 Claims 20-21 and 23-27

In the Office Action, the Examiner rejected Claims 20-21 and 23-27 under 35 USC §103 as being unpatentable over Vail (United States Patent No. 6,031,381) in view of Walters (United States Patent No. 3,539,915) and further in view of Ignagni (United States Patent No. 6,553,322). Applicants respectfully traverse the rejection.

Applicants respectfully submit that Ignagni does not remedy the defects of Vail and Walters discussed above, as neither Vail, nor Walters, nor Ignagni, alone or in combination, teach or suggest the desirability of a first contact, a second contact, and a voltage reading device. In addition, Applicants respectfully submit that there is no teaching or suggestion to combine Vail, with Walters, and with Ignagni as suggested by the Examiner.

Applicants respectfully request that the Examiner withdraw the rejection to claims 20-21 and 23-27 for at least the same reasons as discussed above.

Claim Rejections – 35 USC §103 Claims 16 and 38

In the Office Action, the Examiner rejected claims 16 and 38 under 35 USC §103(a) as being unpatentable over Vail, in view of Walters, and further in view of Cloutier (United States Patent No. 4,427,943). Applicants respectfully traverse the rejection.

Applicants respectfully submit that Cloutier does not remedy the defects of Vail and Walters discussed above, as neither Vail, nor Walters, nor Cloutier teach or suggest the desirability of a first contact, a second contact, and a voltage reading device. In addition, Applicants respectfully submit that there is no teaching or suggestion to combine Vail, with Walters, and with Cloutier as suggested by the Examiner.

Applicants respectfully request that the Examiner withdraw the rejection to claims 16 and 38 for at least the same reasons as discussed above.

New Claims 43-51

Applicants respectfully submit that the new claims recite a rolling brush. The Applicants have discovered that a contact comprising a rolling brush is effective for reducing voltage error to the microvolt range.

Applicants respectfully submit that none of the cited art teaches or suggests the desirability of a contact comprising a rolling brush. Applicants respectfully request that the Examiner allow new claims 43-51.

Allowable Subject Matter

In the Office Action, the Examiner stated that claims 5, 9, 11, 17, 18, 19, 31, 33, 39, 40, and 41 contained allowed subject matter. Applicants would like to thank the Examiner for stating that those claims contain allowable subject matter.

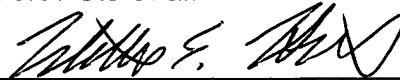
Conclusion

Applicants respectfully submit that every objection and rejection to the claims has been overcome and that the claims are in a position for allowance. If the Examiner

believes it would be useful to discuss the above contents with Applicant's representative, the Examiner is invited to phone the undersigned.

Respectfully submitted,

Bert Pots et al.

A handwritten signature in dark ink, appearing to read "William E. Hickman", is written over a horizontal line.

Attorney, William E. Hickman  
Reg. No. 46,771  
(713) 241-6082

P. O. Box 2463  
HOUSTON, TEXAS 77002